

# SPU/SDoT As-Built Drawing Requirements

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## General Requirements

- ☐ As-Built drawings shall incorporate all deviations to the original design without any references to RFIs, FCRs, payment items, DCs, etc. As-Built drawings shall be accurate, clean, clear and easily readable. In congested areas, additional blow-up details may be required for readability.
- ☐ Items not built shall be crossed out.
- ☐ All As-Built drawing sheets shall be stamped "AS-BUILT DRAWING".
- ☐ As-built drawings may be submitted in one of four formats: AutoCAD, DWF, PDF or print (paper).

## OPTION 1: AutoCAD Requirements

- ☐ As-Built drawings shall be done in AutoCAD or AutoCAD Civil 3D and must conform to the standards as defined in the CAD Manual: [http://www.seattle.gov/util/Engineering/CAD\\_Resources/](http://www.seattle.gov/util/Engineering/CAD_Resources/)
- ☐ As-Built drawing file names shall add **AB-** to the front of the Work Authorization Number.
- ☐ As-Built drawing layers have the "CR-" discipline designator (see Section 5: Layers in the CAD Manual) and use colors 32-38 (see Section 8: Plotting/Printing in the CAD Manual).
- ☐ Items not built shall be put on the CR-NBLT layer (lines can be broken) and crossed out with the CR-ANNO layer (not deleted).
- ☐ Annotation shall have the text style name is set to "COS-Record" with the "font name" set to RomanS.shx, the "paper text height" set to 0.00, the "width factor" set to 1.00 and the "oblique angle" set to 20 (see Section 7: Annotation in the CAD Manual). The plotted text height shall be 1/8".
- ☐ All As-Built drawing sheets shall have the "AS-BUILT DRAWING" stamp block affixed (see Section 2: Support Files in the CAD Manual).

## OPTION 2: DWF Requirements

- ☐ Markups must be done with [Autodesk Design Review](#) on full-size drawings (at least 22"x34").
- ☐ Markups must be done in RED color with the markup tools located in the "Markup & Measure" tab.
- ☐ Text must be 14 pt.

## OPTION 3: PDF Requirements

- ☐ Markups must be done with [Adobe Acrobat](#) (not reader) on full-size drawings (at least 22"x34").
- ☐ Markups must be done in RED color with the following "Comment & Markup" tools: Callout Tool, Text Box Tool, Cloud Tool, Arrow Tool, Line Tool, Rectangle Tool, Oval Tool, Polygon Line Tool and/or Polygon Tool (sticky notes are not valid).
- ☐ Text must be approximately 1/8".

## OPTION 4: Print Requirements

- ☐ Markups must be done in RED ink on full-size (at least 22x34) drawing prints.
- ☐ Handwriting must be clearly written with 1/8" lettering.

## As-Built Checklists

Items in the following checklists apply only when deviations to the original design drawings occur.

### Paving Plans

- ☐ Station and offset (or station and pavement width) from monument line or construction baseline to:
  - ☐ all beginnings and ends of curb and/or "match existing" points.
  - ☐ all curb PC's, PT's, PRC's, angle points, and changes of curb height. If wheel-chair ramps are involved project top of curb elevations through ramp area.
  - ☐ delta angle on all curb returns, and radius on all curb returns and reverse curves (curve information may be shown in a table or detail if desired).
- ☐ Elevations at quarter points of curb returns (curve information may be shown in a table or detail if desired).
- ☐ Radius on all reverse curves (curve information may be shown in a table or detail if desired).
- ☐ Elevations at top corners of each proposed ADA ramp, if applicable.
- ☐ Show outlines of castings/openings in paved area.

### Paving Profiles

- ☐ Show elevations at all grade breaks.
- ☐ Show elevations at all "match existing" points.
- ☐ Provide a description of any vertical curves (required for grade changes greater than 1%). The description must include:
  - ☐ VPI station and elevation.
  - ☐ Length of vertical curve (min along streets is 75').
  - ☐ High or low point station and elevation, if applicable.

### Paving Cross Sections

- ☐ Dimension from centerline to saw cut, flow line (if other than base of curb), face of curb, sidewalk and sidewalk width, and right-of-way line.
- ☐ Show height of curb or dimensions of thickened edge of asphalt
- ☐ Show cross slope on all paved surfaces

## Utility Plans

- ☐ Rim and invert elevations for all manholes, catch basins, inlets, pipes, etc.
- ☐ Station and offset from monument line or construction baseline to:
  - ☐ all features (maintenance holes, cleanouts, catch basins, inlets, fittings, joints, hydrants, valves, etc.).
  - ☐ all horizontal break points and all connection points.
- ☐ Size and material of each pipe.
- ☐ Size and type of each feature (maintenance holes, cleanouts, catch basins, inlets, fittings, joints, hydrants, valves, etc.).

## Utility Profiles

- ☐ Pipe profiles are required for all sewer, storm drain, and water mains. Pipe profiles must include:
  - ☐ Identification of each structure.
  - ☐ Elevation at rim of each structure.
  - ☐ Elevations at each invert, connection, and/or grade break on each pipe.
  - ☐ Gravity pipes must be labeled with size, material, length and slope of each pipe run.
- ☐ Radius and delta angle of curved pipes, if applicable.